SEQUENCE LISTING

<110> Dolly, James Oliver
      Li, Yan
      Chan, C.K.
      Aoki, Kei Roger

<120> Activatable Recombinant Neurotoxins

<130> 17311(BO)

<140> 09/648,692
<141> 2000-08-25

<150> 60/150,710
<151> 1999-08-25

<160> 24

<170> FastSEQ for Windows Version 3.0

<210> 1
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<213> Artificial Sequence

<220>
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<400> 2
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<220>
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<400> 3

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<220>
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<400> 4
ttctaaagat ctatacattt gataact   27

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<400> 5
atgtatagat ctttagaata tcaagta   27

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<220>
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<400> 6
atcgataagc ttttatcagt cgacccaaca atccagattt ttaga   45

<210> 7
<211> 65
<212> PRT
<213> Artificial Sequence

<220>
<223> Engineered Intrachain loop region for C. tetani
     toxin

<400> 7
Ser Lys Leu Ile Gly Leu Cys Lys Lys Ile Ile Pro Pro Thr Asn Ile
1   5   10   15
Arg Glu Asn Leu Tyr Asn Arg Thr Ala Gly Glu Lys Leu Tyr Asp Asp
            20   25   30
Asp Asp Lys Asp Arg Trp Gly Ser Ser Arg Ser Leu Thr Asp Leu Gly
        35   40   45
Gly Glu Leu Cys Ile Lys Asn Glu Asp Leu Thr Phe Ile Ala Glu Lys
    50   55   60
Asn

2

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<210> 8
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<212> DNA
<213> Artificial Sequence

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<223> PCR primer

<400> 8
aatagaactg caggagaaaa gctttacgac gatgac                                36


<210> 9
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<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 9
gtcatcgtcg taaagctttt ctcctgcagt tctatt                                36


<210> 10
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<212> DNA
<213> Clostridium botulinum

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aatcaagatt acaattgggt tatatgtgat cttaatcatg atataccaaa aaagtcatat     180
ctatggatat taaaaaatat ataaatttaa aattaggaga tgctgtatat gccaaaaatt     240
aatagtttta attataatga tcctgttaat gatagaacaa ttttatatat taaaccaggc     300
ggttgtcaag aattttataa atcatttaat attatgaaaa atatttggat aattccagag     360
agaaatgtaa ttggtacaac cccccaagat tttcatccgc ctacttcatt aaaaaatgga     420
gatagtagtt attatgaccc taattatta caaagtgatg aagaaaagga tagatttta      480
aaaatagtca caaaaatatt taatagaata aataataatc tttcaggagg gattttatta     540
gaagaactgt caaaagctaa tccatattta gggaatgata atactccaga taatcaattc     600
catattggtg atgcatcagc agttgagatt aaattctcaa atggtagcca agacatacta     660
ttacctaatg ttattataat gggagcagag cctgatttat ttgaaactaa cagttccaat     720
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gatcctgctc ttacattaat gcatgaatta atacattcat tacatggact atatggggct     900
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agtgctcagt ccaatgatat ctatactaat cttctagctg attataaaaa aatagcgtct    1080
aaacttagca aagtacaagt atctaatcca ctacttaatc cttataaaga tgtttttgaa    1140
gcaaagtatg gattagataa agatgctagc ggaatttatt cggtaaatat aaacaaattt    1200
aatgatattt ttaaaaaatt atacagcttt acggaatttg atttacgaac taaatttcaa    1260
gttaaatgta ggcaaactta tattggacag tataaatact tcaaactttc aaacttgtta    1320
aatgattcta tttataatat atcagaaggc tataatataa ataatttaaa ggtaaatttt    1380
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3

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gtaaaaaaaa tcattagatt ttgtaaaaat attgtttctg taaaaggcat aaggaaatca 1500
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gatgataata taaatactcc taaagaaatt gacgatacag taacttcaaa taataattat 1620
gaaaatgatt tagatcaggt tattttaaat tttaatagtg aatcagcacc tggactttca 1680
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ggaaataata ttgggttgtt aggtttcaag gcagatactg tcgttgctag tacttggtat 3900
tatacacata tgagagatca tacaaacagc aatggatgtt tttggaactt tatttctgaa 3960
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<210> 11
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<220>
<223> PCR primer

<400> 11
cccggatccc caaaaattaa tagtttttaat tataatg   37

4

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        <210> 12
        <211> 36
        <212> DNA
        <213> PCR primer

        <400> 12
cccctgcagt catttttctt gccatccatg ttcttc                              36

        <210> 13
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        <212> DNA
        <213> Artificial Sequence

        <220>
        <223> PCR primer

        <400> 13
cagttaatac attcattaca tggactatat g                                   31

        <210> 14
        <211> 26
        <212> DNA
        <213> Artificial Sequence

        <220>
        <223> PCR primer

        <400> 14
atgcattaat gtaagagcag gatctt                                         26

        <210> 15
        <211> 5
        <212> PRT
        <213> Unknown

        <220>
        <223> protease cleavage site

        <400> 15
Asp Asp Asp Asp Lys
 1               5

        <210> 16
        <211> 8
        <212> PRT
        <213> Unknown

        <220>
        <223> Protease cleavage site

        <400> 16
Leu Glu Val Leu Phe Gln Gly Pro
 1               5
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<210> 17
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<212> PRT
<213> Clostridium species

<220>
<221> ZN_FING
<222> (1)...(5)
<223> Xaa=any amino acid

<400> 17
His Glu Xaa Xaa His
 1               5

<210> 18
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
<223> Linker

<400> 18
ggagaaaagc tttacgacga tgacgataag gatcgatggg gatcctctag a        51

<210> 19
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Linker

<400> 19
Met Gly Gly Ser His His His His His His Gly Met Ala Ser Met Thr
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Gly Gly Gln Gln Val Asp
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<210> 20
<211> 19
<212> PRT
<213> Clostridium botulinum

<400> 20
Ser Leu Thr Asp Leu Gly Gly Glu Leu Cys Ile Lys Ile Lys Asn Glu
 1               5                  10                 15
Asp Leu Thr

<210> 21
<211> 54
<212> DNA
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<213> Artificial Sequence

<220>
<223> Linker

<400> 21
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<210> 22
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Protease cleavage site.   Xaa equals any amino
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<400> 22
Glu Xaa Xaa Tyr Ser Gln Ser
1   5

<210> 23
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Protease cleavage site.   Xaa equals any amino
      acid.

<400> 23
Glu Xaa Xaa Tyr Xaa Gln Gly
1   5

<210> 24
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Translated PCR fragment

<400> 24
Met Arg Gly Ser His His His His His Gly Ser Pro Lys Ile Asn
1   5   10   15
Ser Thr